

REMARKS

The Final Office Action mailed April 19, 2005 and the Advisory Action mailed September 1, 2005 have been received and carefully noted. The following remarks are submitted as a full and complete response thereto.

Claims 1-7 and 9-17 are pending in the present application.

Dependent claim 17 stands objected to as being of improper dependent form. Specifically, the Examiner states that claim 17 does not add any limitation to claim 1. The objection is respectfully traversed and reconsideration is requested in view of the amendments to claims 1 and 17.

Independent claim 1 is directed to, in pertinent part, that a plurality of detecting units for detecting a predetermined mark to detect synchronization from parallel data. Dependent claim 17 further defines the plurality of detecting units also detect the corresponding each of the plurality of parallel data. Support for this claim can be found in the Specification at p. 52, ls. 5-21. Reconsideration is accordingly respectfully requested.

Claims 1-7 and 9-16 stand rejected under 35 U.S.C. § 102(e) as being anticipated by the Wilson et al. patent (U.S. Patent No. 6,118,603). Dependent claims 2-7, 9 and 17 depend from independent claim 1. Dependent claims 12-16 depend from independent claim 11. The rejections are respectfully traversed and reconsideration is requested.

Independent claim 1, as amended, recites in part:

...a receiving unit for receiving a series of data including a predetermined mark for detecting synchronization and generating parallel data from the series of data; and
a plurality of detecting units being provided at each bit position of the parallel data and for detecting said predetermined mark for detecting synchronization from the parallel data.

Independent claim 10 recites a data processor for detecting the predetermined mark for detecting synchronization included in a series of data read from a memory medium in order to establish synchronization at a time of transferring the series of data to a controller unit from a read channel unit, comprising similar features. Independent claim 11 recites a data processing method. It is respectfully submitted that Wilson et al. does not disclose or suggest each and every element of the data processor or method of the present invention.

The present invention includes detecting units for detecting a predetermined mark for detecting synchronization from each bit position of parallel data. With reference to Fig. 2, the parallel data of 4 bits is input to four synchronization detectors. With reference to Fig. 3, relating to a flip-flop FF(0) to a flip-flop FF(n) of four bits in a shift registered, even where the order of data positions of predetermined marks for detecting synchronization (i.e., the order in which the bit data constituting the mark for detecting synchronization are arranged sequentially in each bit position of the parallel data) is any one of the types ○-line, Δ-line, □-line and ×-line, any one of the four detectors can detect the predetermined mark for detecting synchronization. The predetermined marks for detecting synchronization can be detected from any bit position of the parallel data.

According to the present invention, which detects the predetermined mark for detecting the specified synchronization which is sequentially arranged in each bit position of the parallel data with the plurality of detecting units, the predetermined mark for detecting synchronization can be detected from any bit position of the parallel data. The present invention is specifically provided with the plurality of detecting units for detecting the predetermined mark for detecting synchronization in a predetermined bit width among the series of data in the parallel condition. Thus, any one of the detecting units can detect the predetermined mark for detecting the

specified synchronization to confirm the synchronous position at the predetermined bit position in parallel data.

In contrast, Wilson et al. discloses a method and system of encoding and decoding servo information on a removable disk cartridge. Specifically, with reference to Fig. 5, the read data signal 502 is a peak-detected, digitized signal which originates from the disk drive recording channel. In response to read data 502, data detector 504 produces a synchronized serial servo data signal. The serial servo data signal 508 is provided to a special shift register 510 which is a multiple of 12 bits in length to accommodate a 12-bit servo synchronizing mark. The shift register 510 prepares a parallel data signal 512, which is applied to two mark detectors 515 and 516. These mark detectors detect, Mark_0 and Mark_1 characters. (col. 7, ln. 39 – col. 8, ln 18)

Wilson et al. also includes two mark detectors 515 and 516 which are separate detectors for detecting different marks, or Mark_0 and Mark_1 characters, respectively. Those detectors merely detect two different marks by parallelizing serial data. If the mark detectors 515 and 516 fail to detect respective synchronization marks, the synchronization could not be detected. Accordingly, Wilson et al. fails to disclose or suggest the data processor and data processing method as claimed in the present invention.

Based upon the forgoing, Applicant respectfully submits that each and every element recited within independent claims 1 and 10-11 is neither disclosed nor suggested by Wilson et al., and therefore is patentable and in condition for allowance. Reconsideration is requested.


It is further submitted that dependent claims 2-7, 9 and 17 and dependent claims 12-16 are also patentable and in condition for allowance due to their dependency upon independent claims 1 and 11, respectively, since the dependent claims differ in scope from the corresponding parent claims. Dependent claims 2-7, 9 and 17 depend from independent claim 1 and dependent

claims 12-16 depend from independent claim 11, and thus are further limited to additional features of the invention. Therefore, it is respectfully submitted that the dependent claims are patentable over Wilson et al. for at least the reasons set forth above with respect to independent claims 1 and 11. Reconsideration is requested.

If for any reason the Examiner determines that the application is not now in condition for allowance, it is respectfully requested that the Examiner contact the Applicant's undersigned counsel at the telephone number, indicated below, to arrange for an interview to expedite the disposition of this application.

The Commissioner is authorized to charge payment for any additional fees which may be required with respect to this paper to Deposit Account No. 01-2300, making reference to Docket No. 024016-00008.

Respectfully submitted,



Rustan J. Hill
Registration No. 37,351

Customer No. 004372
ARENT FOX, PLLC
1450 Connecticut Ave. NW, Suite 400
Washington, D.C. 20036
Tel: (202)-857-6000
Fax: (202) 857-6395
Enclosures: Petition for Extension of Time
RCE Transmittal
RJH:elp
325221.1